AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) The cooling system of Claim 23 ~~1~~, wherein said system master is operable to modify said configuration data.

4. (Currently Amended) The cooling system of Claim 23 ~~1~~, wherein said system master is operable to send new configuration data to each said controller.

5. (Currently Amended) The cooling system of Claim 23 ~~1~~, wherein each said controller includes a microprocessor.

6. (Cancelled)

7. (Currently Amended) The cooling system of Claim 23 ~~1~~, wherein said configuration data includes at least one or more of the group comprising: compressor information, compressor model code, compressor serial number, application, application temperature range, refrigerant code, oil code, oil charge, customer information,

customer name, customer model number, control configuration, anti-short cycle time, discharge pressure cut-in, discharge pressure cut-out, discharge pressure sensor option enabled, discharge trip time, discharge multiplier, discharge divider, discharge temperature cut-out, oil add set point, oil stop add set point, oil trip set point, oil on time, oil off time, oil add period, shake limit, shake count, suction pressure low limit, suction pressure high limit, suction multiplier, suction divider, suction pressure sensor option, event history, compressor cycles, compressor on time, discharge pressure trips, discharge temperature, motor trips, oil trips, suction pressure limit trips, shake limit trips, events since cleared.

8. (Currently Amended) The cooling system of Claim 23 ~~1~~, wherein said configuration ~~sensor~~ data includes at least one or more from the group comprising: anti-short cycle time, discharge pressure cut-in, discharge pressure cut-out, discharge trip time, discharge multiplier, discharge divider, suction pressure cut-in, oil stop add, suction pressure cut-out, suction multiplier, suction divider, oil add, oil trip, oil on time, oil off time, oil add period, vibration limit, vibration count.

9. (Cancelled)

10. (Cancelled)

11. (Currently Amended) The cooling system of Claim 27 ~~9~~, wherein said system master is operable to modify said configuration data.

12. (Currently Amended) The cooling system of Claim 27 ~~9~~, wherein said system master is operable to send new configuration data to said first and second controllers.

13. (Currently Amended) The cooling system of Claim 27 ~~9~~, wherein said first and second controllers include microprocessors.

14. (Cancelled)

15. (Currently Amended) The cooling system of Claim 31 ~~9~~, wherein said configuration data includes at least one or more of the group comprising: compressor information, compressor model code, compressor serial number, application, application temperature range, refrigerant code, oil code, oil charge, customer information, customer name, customer model number, control configuration, anti-short cycle time, discharge pressure cut-in, discharge pressure cut-out, discharge pressure sensor option enabled, discharge trip time, discharge multiplier, discharge divider, discharge temperature cut-out, oil add set point, oil stop add set point, oil trip set point, oil on time, oil off time, oil add period, shake limit, shake count, suction pressure low limit, suction pressure high limit, suction multiplier, suction divider, suction pressure sensor option, event history, compressor cycles, compressor on time, discharge pressure trips,

discharge temperature, motor trips, oil trips, suction pressure limit trips, shake limit trips, events since cleared.

16. (Currently Amended) The cooling system of Claim 31 ~~9~~, wherein said configuration ~~sensor~~ data includes at least one or more from the group comprising: anti-short cycle time, discharge pressure cut-in, discharge pressure cut-out, discharge trip time, discharge multiplier, discharge divider, suction pressure cut-in, oil stop add, suction pressure cut-out, suction multiplier, suction divider, oil add, oil trip, oil on time, oil off time, oil add period, vibration limit, vibration count.

17. (Cancelled)

18. (Currently Amended) The compressor of Claim 31 ~~17~~, wherein said controller sends said configuration data to the system master through said communication gateway.

19. (Currently Amended) The compressor of Claim 31 ~~17~~, wherein said controller includes a microprocessor.

20. (Cancelled)

21. (Currently Amended) The compressor of Claim 31 ~~17~~, wherein said configuration data includes at least one or more of the group comprising: compressor

information, compressor model code, compressor serial number, application, application temperature range, refrigerant code, oil code, oil charge, customer information, customer name, customer model number, control configuration, anti-short cycle time, discharge pressure cut-in, discharge pressure cut-out, discharge pressure sensor option enabled, discharge trip time, discharge multiplier, discharge divider, discharge temperature cut-out, oil add set point, oil stop add set point, oil trip set point, oil on time, oil off time, oil add period, shake limit, shake count, suction pressure low limit, suction pressure high limit, suction multiplier, suction divider, suction pressure sensor option, event history, compressor cycles, compressor on time, discharge pressure trips, discharge temperature, motor trips, oil trips, suction pressure limit trips, shake limit trips, events since cleared.

22. (Currently Amended) The compressor of Claim 31 ~~17~~, wherein said configuration ~~sensor~~ data includes at least one or more from the group comprising: anti-short cycle time, discharge pressure cut-in, discharge pressure cut-out, discharge trip time, discharge multiplier, discharge divider, suction pressure cut-in, oil stop add, suction pressure cut-out, suction multiplier, suction divider, oil add, oil trip, oil on time, oil off time, oil add period, vibration limit, vibration count.

23. (New) A cooling system comprising:

a compressor rack including a plurality of compressors;

a plurality of controllers, each controller being dedicated to a compressor of said plurality of compressors and having a memory operable to store configuration data

specific to said compressor, said configuration data including data identifying said compressor and providing compressor operating limits;

a communication gateway located at said compressor rack and communicating with each said controller using a serial peripheral interface;

a system master communicating with said communication gateway, said system master operable to command each said controller to send said configuration data to said system master through said communication gateway and operable to store a copy of said configuration data for each said compressor.

24. (New) The cooling system of Claim 23, wherein said system master communicates with said communication gateway using a LonWorks connection.

25. (New) The cooling system of Claim 23, wherein said system master communicates with said communication gateway using a TCP/IP connection.

26. (New) The cooling system of Claim 23, wherein said system master communicates with said communication gateway using a BACnet connection.

27. (New) A cooling system comprising:

a first compressor;

a first controller including first configuration data for said first compressor;

a first sensor associated with said first compressor, connected to said first controller and generating first sensor data;

a second compressor;

a second controller including second configuration data for said second controller;

a second sensor associated with said second compressor, connected to said second controller and generating second sensor data;

a communication gateway communicating with said first and second controllers using a serial peripheral interface;

a system master in communication with said communication gateway and in communication with said first and second controllers through said communication gateway, said system master operable to interrogate a status of said first controller and said second controller, to command said first controller and second controller to send said first configuration data and said second configuration data to said system master, and to command said first controller and said second controller to send said first sensor data and said second sensor data to said system master.

28. (New) The cooling system of Claim 27, wherein said system master communicates with said communication gateway using a LonWorks connection.

29. (New) The cooling system of Claim 27, wherein said system master communicates with said communication gateway using a TCP/IP connection.

30. (New) The cooling system of Claim 27, wherein said system master communicates with said communication gateway using a BACnet connection.

31. (New) A compressor comprising:

a housing;

a fluid compression mechanism disposed in said housing;

a motor driving said fluid compression mechanism;

a controller disposed on said housing and including a memory storing configuration data specific to said compressor, said configuration data identifying said compressor and providing compressor operating limits;

a communication gateway disposed on said housing and communicating with said controller using a serial peripheral interface, said communication gateway operable to communicate with a system master and to allow said memory to be copied, modified, or replaced under the control of the system master.

32. (New) The compressor of Claim 31, wherein said communication gateway communicates with said system master using a LonWorks connection.

33. (New) The compressor of Claim 31, wherein said communication gateway communicates with said system master using a TCP/IP connection.

34. (New) The cooling system of Claim 31, wherein said system master communicates with said communication gateway using a BACnet connection.